(19) World Intellectual Property Organization

International Bureau

(43) International Publication Date



Rec'd PCT/PTO 0 6 JUL 2005

PCT

(10) International Publication Number WO 2004/063633 A1

29 July 2004 (29.07.2004)

(51) International Patent Classification7:

F24D 3/12

(21) International Application Number:

PCT/KR2004/000040

(22) International Filing Date: 12 January 2004 (12.01.2004)

(25) Filing Language:

Korean

(26) Publication Language:

English

(30) Priority Data:

10-2003-0001853 11 January 2003 (11.01.2003) KR 20-2003-0010805 9 April 2003 (09.04.2003) KR

(71) Applicant and

(72) Inventor: KIM, Hyung-Gon [KR/KR]; 839-11 Whajung 3-dong, Seo-gu, Gwangju 502-243 (KR).

(74) Agent: KIM, Won-Joon; Shinwon building 5F,, 648-15 Yeoksam-dong, Kangnam-gu, Seoul 135-911 (KR).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM,

AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

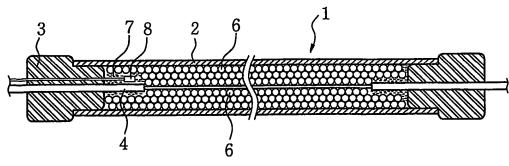
(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: ELECTRIC HEATING PIPE AND ELECTRIC HEATING APPARATUS USING IT



(57) Abstract: The present invention relates to an electric radiating pipe capable of enhancing a heating efficiency in such a manner that a mixture of a porous operation medium and a volatile operation fluid is filled in a radiation pipe, and a porous operation medium is fast heated based on a viscosity difference, and a densely filled operation fluid is phase-changed to a high temperature vapor or a high temperature liquid based on a heated operation medium. In a radiating pipe that includes a certain shaped pipe body, and a heat wire passing through to the interior of the pipe body wherein both ends of the pipe body are sealed by a plugging cap, there is provided an electric radiating pipe that includes a porous inflammable operation medium and volatile operation fluid being mixed and being filled into the interior of the pipe body.